

FALCONBRIDGE NICKEL MINES LIMITED

late 66 or 67
\$ 125,000,000

ANNUAL REPORT



1964



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ANNUAL MEETING

Tuesday, April 20, 1965,
10:00 a.m. — Alberta Room,
Royal York Hotel, Toronto.

HIGHLIGHTS

	1964	1963
Nickel deliveries — pounds	78,485,000	53,245,000
Metal sales and other operating revenues	\$ 80,306,000	\$59,764,000
Income from investments	\$ 11,055,000	\$ 5,713,000
Earnings for the year	\$ 24,965,000	\$14,288,000
Shares outstanding	4,871,000	4,852,000
Earnings per share	\$5.12	\$2.94
Dividends per share	\$2.80	\$2.50
Working capital ...	\$ 58,831,000	\$69,668,000
Market value of investments in unconsolidated subsidiary and other companies	\$165,728,000	\$98,682,000

FALCONBRIDGE NICKEL MINES LIMITED

7 KING STREET EAST, TORONTO 1, ONTARIO, CANADA

Directors

- *J. D. BARRINGTON, President and Managing Director, McIntyre Porcupine Mines Limited
R. CAMPBELL, Executive Vice-President
C. F. H. CARSON, Q.C., Partner, law firm of Tilley, Carson, Findlay & Wedd
O. D. COWAN, President and General Manager, Ontario Steel Products Company Limited
*H. J. FRASER, President and Managing Director
W. F. JAMES, Partner in James, Buffam and Cooper, Consulting Geologists
T. LINDSLEY, President, Northfield Mines Inc.
L. J. MCGOWAN, Chairman of the Board, Taylor Woodrow of Canada Limited
J. STEWART, Director, Canadian Imperial Bank of Commerce
S. M. WEDD, Director, McIntyre Porcupine Mines Limited
*R. B. WEST, Chairman of the Board, A. E. Ames & Co. Limited

* Member of the Executive Committee

Officers

President and Managing Director	H. J. FRASER
Executive Vice-President	R. CAMPBELL
Vice-President — Operations	R. C. MOTT
Vice-President — Corporate Affairs	G. S. JEWETT
Vice-President — Finance and Secretary	G. T. N. WOODROOFFE
Vice-President — Marketing	W. G. DAHL
Director of Exploration and Geology	G. P. MITCHELL
Director of Metallurgy and Research	F. R. ARCHIBALD
Director of Mining Engineering and Research	E. L. HEALY
General Manager — Nickel Division	R. M. OLIVER
General Manager — Minerals Division	H. S. MCGOWAN
Controller	A. W. COOME
Treasurer	J. T. MCWHIRTER
Assistant Secretary	J. L. MATTHEWS
Assistant Treasurer	J. R. MCKEEMAN

Division Managers — Nickel Operations:

- D. R. LOCHHEAD, Sudbury Operations, Falconbridge, Ontario
R. JAHNSEN, Refinery, Kristiansand S., Norway

Solicitors

Tilley, Carson, Findlay & Wedd, Toronto

Auditors

Clarkson, Gordon & Co., Toronto

Transfer Agents and Registrars

Crown Trust Company, Toronto and Montreal
Registrar and Transfer Company, New York and Jersey City, U.S.A.

REPORT OF THE DIRECTORS

Your Directors are pleased to report that 1964 was a year of record achievement for the company.

In an environment of intense activity in commercial markets, new peaks were established in nickel sales and deliveries and in corporate earnings. A significant feature of the year was the substantial increase in dividends from Falconbridge holdings in other companies, contributing to the highest per share earnings and dividends in your company's history.

Earnings amounted to \$24,965,000 or \$5.12 per share, compared with \$14,288,000 or \$2.94 per share in 1963. The previous record for total earnings was \$19,833,000 in 1962, while the previous high per-share earnings were \$4.49 in 1961 on a much smaller number of issued shares. Dividends of \$2.80 per share were paid in 1964, compared with \$2.50 the previous year.

During 1964 the nickel industry was required to meet the highest demands in its history. Annual nickel consumption in the Free World, for the first time, exceeded 600,000,000 pounds, and this rate of consumption is being sustained without any sign of abatement in the current year to date. Increased use and a variety of new applications for nickel have contributed largely to the rising consumption. Prices have remained firm. Copper and other metals likewise enjoyed a year of strong demand, with improved prices for copper in particular contributing substantially to the operating results of Falconbridge-affiliated companies.

As a result of large stocks of finished and unfinished nickel on hand the company had curtailed its output in 1963; however, because

of the unprecedented high rate of demand that subsequently developed, the company took steps in the first quarter of 1964 to revert to the previous production level.

Although smelter production of nickel in matte was less than in 1963, refinery processing in 1964 of accumulated stocks of unfinished nickel resulted in greater production than in 1963. A concerted marketing effort, coupled with the favourable inventory position, enabled the company to achieve record deliveries of 78,485,000 pounds. Deliveries of nickel in 1964—all of which were in commercial markets—not only exceeded production but were 25,240,000 pounds ahead of the 1963 figure. They also exceeded by 12,939,000 pounds the previous high, established in 1961. Operating profit from nickel operations before write-offs improved by \$7,012,000—from \$20,293,000 in 1963 to \$27,305,000 in 1964.

The increase in the earnings and distributions of subsidiary and other companies also contributed to the significant improvement in Falconbridge earnings. The income from this source amounted to \$9,912,000 in 1964 as compared with \$3,941,000 in the previous year. In addition, in 1964 the company's interest in the net earnings of subsidiary and other companies exceeded the dividends received from such sources by \$3,800,000—these undistributed earnings not being included in Falconbridge earnings reported above. In 1963 the comparable figure was \$786,000.

The greatest increase in dividend receipts resulted from the sharp upswing in the earnings of Kilembe Copper Cobalt Ltd. and La Luz Mines Limited which marketed their copper production at the unusually high

prices for copper prevailing on the London Metal Exchange. In addition, the earnings of United Keno Hill Mines Limited doubled during the year. The dividends received by Falconbridge from these three companies were \$3,936,000 greater than in 1963.

After deducting the year's dividend payments, operations produced surplus funds of \$13,938,000; however, investment in the consolidated companies' operations of \$11,012,000 and net investment in unconsolidated subsidiary and other companies of \$13,332,000 — together with miscellaneous items totalling \$427,000 — resulted in a reduction in working capital of \$10,837,000 to \$58,831,000 by the end of the year.

The investment in consolidated companies' operations consisted primarily of expenditures on mining plant and underground development at Strathcona mine, smelter plant additions and improvements at Falconbridge, and preparatory developments at the Tasu iron operation of Wesfrob Mines Limited.

Details of the company's investments in unconsolidated subsidiary and other companies are given on pages 16 and 17 of this report. Purchases less sales and realizations of shares of other companies during the year resulted in a net investment by the company during the year of \$13,332,000. The more important acquisitions consisted of the purchase of 175,825 shares of McIntyre Porcupine Mines Limited, 386,912 shares of Industrial Minerals of Canada Limited, 200,000 shares of Alminex Limited, and 50,000 shares of Dominion Magnesium Limited. The purchases of Alminex and Dominion Magnesium placed these companies in the category of subsidiaries. Additional investment was made in the exploration and development of properties of associated companies. Income bonds of Zaballos Iron Mines Limited in the amount of \$1,500,000 were purchased in order to liquidate the bank loan of that company. Falconbridge received a liquidating distribution in the year of about \$3,500,000 from Tonopah Mining Company of Nevada.

The net gain on disposal of investments

in subsidiary and other companies during the year is shown in the Statement of Retained Earnings at \$3,273,000.

The indicated market value of those of the company's shareholdings which are quoted amounted at the end of the year to \$165,728,000, equivalent to \$34.02 for each company share outstanding. This was an increase during the year of \$67,046,000 or \$13.68 per share. The indicated market value of those shareholdings at December 31, 1963, which were held at December 31, 1964, increased by \$53,249,000.

Comments on the activities and operating results of the more important associated companies are given on pages 18 to 27 of this report. Two events were of particular significance during 1964 — the commencement of the Tasu iron ore project of Wesfrob Mines Limited in British Columbia, involving upwards of \$25,000,000 over a period of two and a half years; and the beginning of production at the Lake Dufault copper-zinc property in Quebec. Exploration and underground development continued throughout the year at Kiena Gold Mines Limited, also in Quebec.

In the company's mines in the Sudbury district, exploration and development work during the year was fruitful in proving ore reserves, particularly in the Strathcona mine. A new orebody of good grade but undetermined size, now known as the North mine and lying south-east of the Fecunis mine, was discovered in the latter part of the year.

The company's ore reserves have been re-appraised in accordance with long-term economic studies made by our technical staff. In addition, the reserves have been reclassified. The former classifications of "developed" and "indicated" ores have been replaced by "proven" and "probable" ores.

The proven reserves at the year-end were calculated at 52,236,250 tons grading 1.43% nickel and 0.76% copper and containing 1,144,186 tons of these metals in ore. Total reserves were shown in the 1963 annual report as 51,332,000 tons of 1.42% nickel

and 0.79% copper which contained 1,132,785 tons of these metals.

In addition, at the end of 1964 the company's unproven reserves of probable ore were estimated at 17,287,400 tons, containing 1.02% nickel and 0.68% copper, or 293,880 tons of these metals. Transfers will be made from the probable to the proven category from time to time as information develops. The proven and probable tonnages reported above allow for appropriate dilution factors in order to establish the reserves on a hoisted-ore basis.

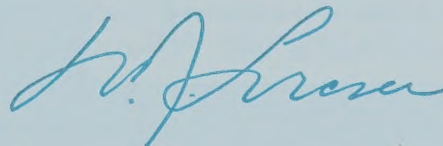
Extensive research and development work was continued in Canada, Norway and the Dominican Republic on improvements of processes in extractive and physical metallurgy. Results are encouraging.

A number of changes were made during the year to strengthen the organization and to provide expanded staff services. Mr. G. S. Jewett, formerly Vice President — Sales became Vice President — Corporate Affairs. Mr. W. G. Dahl, experienced in the specialty steel business in the United States, joined the company as Vice President — Marketing. Two new departments were established in Toronto to provide technical guidance and

assistance for the company and its associates — Mr. E. L. Healy, formerly Manager, Sudbury Operations, became Director of Mining Engineering and Research and Mr. R. H. Moore became Chief Engineer of the company. Mr. D. R. Lochhead succeeded Mr. Healy as Manager, Sudbury Operations. Mr. H. L. Hickey was appointed Manager, Public Relations.

Your Directors wish to acknowledge the wholehearted and efficient support extended by officers and employees of the company, which contributed to the outstanding results of the past year. Sincere appreciation is also extended to the personnel of subsidiary and associated companies for their effective contribution to your company's progress in 1964.

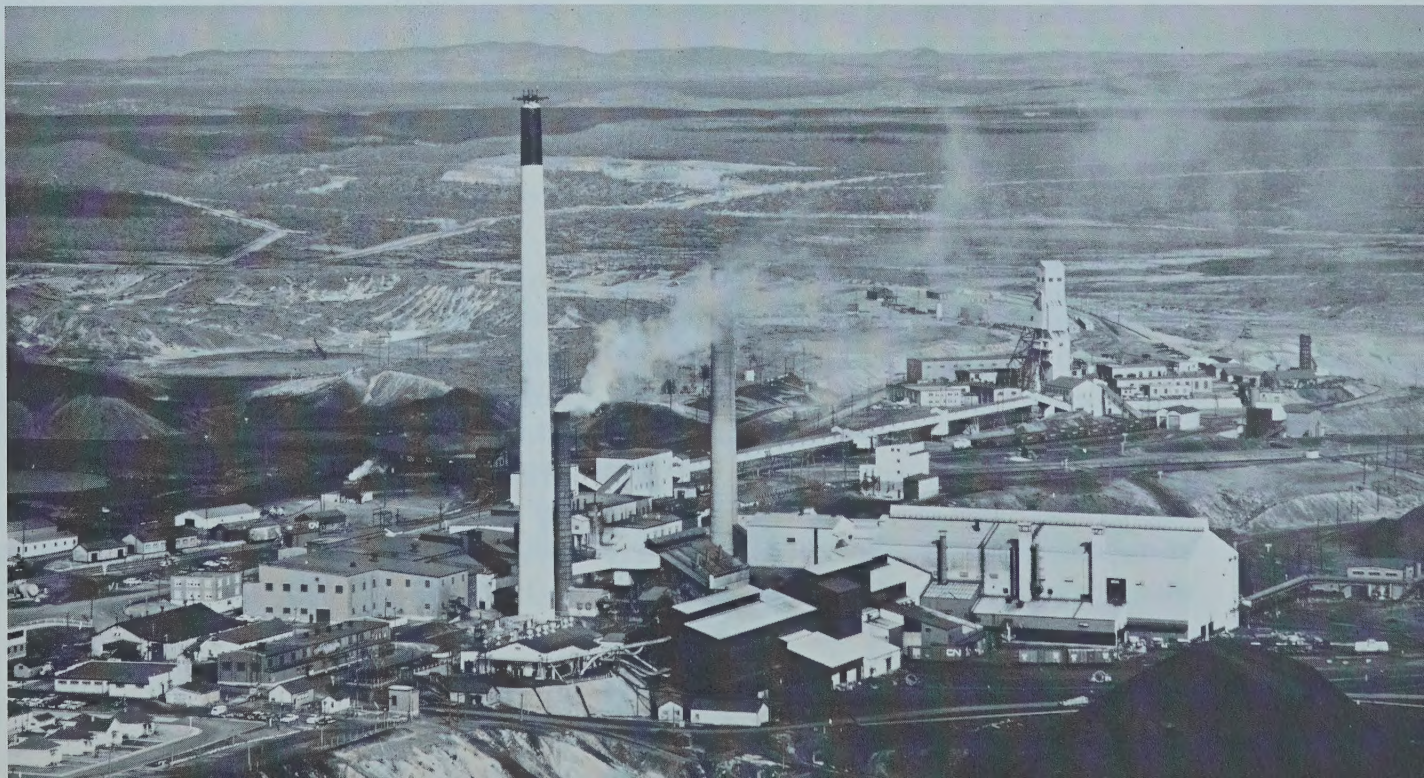
On behalf of the Board of Directors,



President and
Managing Director.

March 8, 1965.

General view of operations at Falconbridge, Ontario,
features new 450-foot sinter plant chimney.



FINANCIAL REVIEW

SUMMARY DATA

	1964	1963	Increase or (Decrease)
Earnings	\$ 24,965,000	\$14,288,000	\$10,677,000
— per share	\$5.12	\$2.94	\$2.18
Operating profit from nickel operations	\$ 23,999,000	\$16,355,000	\$ 7,644,000
Income from subsidiary and other companies	\$ 9,912,000	\$ 3,941,000	\$ 5,971,000
Dividends paid to shareholders	\$ 13,617,000	\$12,103,000	\$ 1,514,000
— per share	\$2.80	\$2.50	\$0.30
Working capital (at December 31)	\$ 58,831,000	\$69,668,000	(\$10,837,000)
— per share	\$12.08	\$14.36	(\$2.28)
Indicated market value of shares in unconsolidated subsidiary and other companies (at December 31) ..	\$165,728,000	\$98,682,000	\$67,046,000
— per share	\$34.02	\$20.34	\$13.68

Earnings

The substantial increase of \$10,677,000 in 1964 earnings over those of 1963 to a record high of \$24,965,000 is accounted for by both higher operating profit from nickel operations and increased income from subsidiary and other companies. While nickel operations continued to generate the major share of earnings, dividend income provided a greater proportion of the total earnings than in 1963. Operating profit from nickel operations increased by \$7,644,000 to \$23,999,000 chiefly as a result of the increase in nickel deliveries of 24,240,000 pounds or 47%. Operating costs were adversely affected by the cut-back in production which commenced in late 1963 and carried into 1964; during the same period mine development work was reduced. This situation was reversed in the latter half of 1964 with the emphasis on increased production. The increased volume of deliveries and the strengthening of the company's sales and technical services increased selling, general and administrative expenses.

Of the increase of \$5,971,000 in income received from subsidiary and other companies, \$3,577,000 is accounted for by higher dividends from Kilembe Copper Cobalt Ltd. and La Luz Mines Limited; the latter resumed dividends after a period of eight years. These companies enjoyed much higher earnings in 1964 as a result of the sharp increase in the London Metal Exchange prices for copper, at which prices operat-

ing subsidiaries of Kilembe and La Luz sell their production. The balance of the increase results primarily from higher dividend payments by Opemiska Copper Mines, United Keno Hill Mines and Industrial Minerals of Canada and initial dividends by Alminex.

Taxes based on income, higher in 1964 by \$3,200,000 because of the increase in profit from nickel operations, reflect the taxes currently payable. Up to and including 1961 the accumulated charges to earnings for depreciation and development and preproduction expenditures had substantially exceeded the amounts claimed for tax purposes. Since 1961 the company has been claiming considerably higher write-offs (including the deferred preproduction expenditures at the Strathcona mine and the Wesfrob property) than those charged to earnings. As a result the position as at December 31, 1964 has reversed itself and at that date the accumulated write-offs claimed for tax purposes exceed those charged to earnings.

Dividends

Dividends were declared at the rate of 50¢ per share in each of the first two quarters of the year and at the rate of 65¢ per share in each of the third and fourth quarters. In addition, an extra dividend of 50¢ per share was paid in the fourth quarter, making a total distribution of \$2.80 for the year as compared with \$2.50 in 1963.

Working Capital

After deducting \$13,617,000 paid in dividends, there remained funds of almost \$14,000,000 generated by the year's operations; however, this amount was insufficient to cover the investment in plant and equipment, the plant and development costs at the Strathcona and Tasu mines and the net investment in unconsolidated subsidiary and other companies. As a result working capital decreased in the year by \$10,837,000 from \$69,668,000 to \$58,831,000.

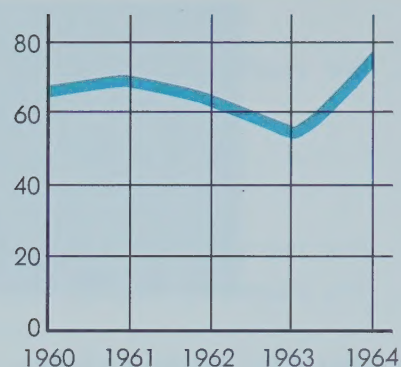
Investment in Unconsolidated Subsidiary and Other Companies

Total acquisitions amounted to \$18,685,000 and realizations and disposals were \$5,353,000, a net increase for the year of \$13,332,000. Realizations and disposals exceeded book values by \$3,273,000. This gain is shown in the Statement of Retained Earnings. The indicated market value of those of the company's investments which had quoted values was \$165,728,000 as at December 31, 1964 as compared with \$98,682,000 the previous year. After allowing for net investments during the year, the increase in the indicated market values was about 55 per cent. The appreciation in the investments in base metal and silver mining companies was about 68 per cent chiefly accounted for by the shareholdings in Kilembe Copper Cobalt and Lake Dufault Mines.

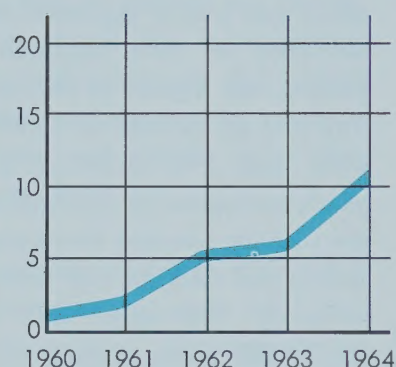
Shareholders

During the year, 18,988 shares were issued through the exercise of options and warrants bringing the issued shares at the year-end to 4,871,258. The number of shareholders declined during the year from 14,177 to 13,246 of whom 8,889 were shareholders of Canadian registry holding 67 per cent of the outstanding shares.

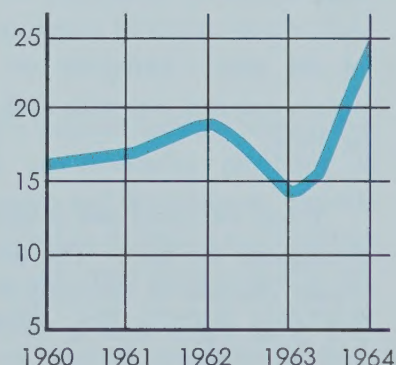
NICKEL DELIVERIES
millions of pounds



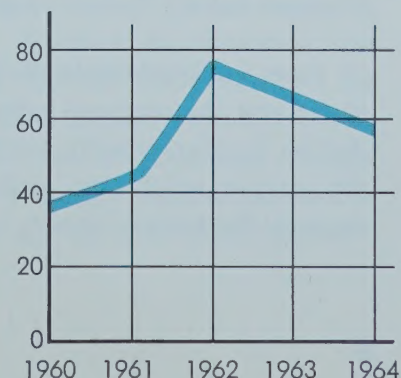
INCOME FROM INVESTMENTS
millions of dollars



EARNINGS
millions of dollars



WORKING CAPITAL
millions of dollars





OPERATIONS REVIEW

NICKEL OPERATIONS

Metal Deliveries and Prices

As a result of a much stronger demand for nickel and a more aggressive sales effort, nickel deliveries in 1964 increased to 78,485,000 pounds, the highest in the company's history. This was an increase of 25,240,000 pounds or 47% over 1963 deliveries and exceeded the year's production by 11,951,000 pounds. During the year the company broadened its sales organization and sales are now made regularly to 25 countries. The major sales emphasis was in the United States market which accounts for about one-half of Free World consumption. Deliveries of copper — 25,102,000 pounds as compared to 28,690,000 pounds in 1963 — were limited by production as the company did not have an excess of inventory at the beginning of the year. Deliveries of cobalt, precious metals and iron ore were each at a higher level in 1964.

Prices for nickel and cobalt were unchanged throughout the year. The price per pound of copper received by the company averaged about 2½ cents higher than in 1963.

Mines

	<u>1964</u>	<u>1963</u>
Ore delivered to treatment plants from company mines (tons)	1,960,000	2,116,000

From a reduced rate in effect at the beginning of the year the company increased its ore production to near capacity levels by the end of the year, at which time production somewhat exceeded the furnace capacity in the new smelter

aisle. This situation has since been relieved by bringing a second furnace into operation.

Most of the underground development work was carried on in the Strathcona mine and included a large diamond drilling program to outline the orebody for mining. A second shaft at Strathcona was collared and a pilot raise was commenced from underground to connect with this shaft. A new orebody now known as the North mine was discovered late in the year adjacent to the Fecunis mine. It is being actively developed for production.

Marbridge Mines Limited

The concentrates produced from this 50% owned mining operation in La Motte township in Quebec are sold to Falconbridge. Exploration disclosed the existence of a second orebody in the property about 3,000 feet south of the original workings. Plans were made to mine this new orebody and by year-end a shaft collar was completed and headframe erected. As at the end of the year, ore reserves in the No. 1 mine were calculated at 110,000 tons grading 1.90% nickel and at No. 2 mine, 125,000 tons grading 3.50% nickel were indicated from surface drilling.

Treatment Plants

	<u>1964</u>	<u>1963</u>
Ore and concentrates delivered to treatment plants from all sources (tons)	1,989,000	2,146,000
Ore milled to produce concentrates (tons)	1,903,000	2,116,000
Ore and concentrates smelted (tons)	372,000	433,000

Single-furnace capacity in the new smelter aisle was adequate to handle production in 1964. To provide for increased production and increased operating flexibility, however, construction of a new furnace was undertaken during the year. It was placed in operation in January 1965.

Refinery

Operating conditions at the refinery were stable. Investment in past years in automation and instrumental controls is showing good results. Excess stocks of unfinished metal at the beginning of the year were reduced and production of nickel was about 14% higher than in 1963.

Expenditures on Mines and Plants of the Nickel Division

	<u>1964</u>	<u>1963</u>
Plant and Equipment —		
Canada	\$3,280,000	\$2,110,000
Norway	575,000	783,000
	<u>\$3,855,000</u>	<u>\$2,893,000</u>
Pre-production —		
Strathcona	1,691,000	2,133,000
	<u>\$5,546,000</u>	<u>\$5,026,000</u>

The major expenditures of a capital nature in the Sudbury district were incurred for developing the orebody and providing the mining plant for production at Strathcona and for modernizing and extending the smelter facilities. Construction at Strathcona mine included the erection of the production headframe. The items on which expenditures at the smelter were made included a new sinter-plant chimney and ancillary equipment as well as the second blast furnace in the new smelter aisle. Capital expenditures at the refinery were principally for storage facilities and equipment required for metal shearing.

Labour

Labour conditions in the Sudbury district were stable throughout the year. The collective

agreement with employees at the refinery was renewed in April, 1964.

EXPLORATION

The company carried out a vigorous and diversified exploration program in Canada and abroad.

An active search for new nickel occurrences was continued throughout the year, primarily in the Sudbury area, Manitoba, Ungava and the Abitibi Peridotite Belts of Ontario and Quebec. The discovery of the North mine in the Sudbury area, the new Marbridge discovery in La Motte township in Quebec and encouraging results in both the Manitoba and Abitibi areas were achieved by this program.

Exploration activities related to other metals extended throughout Canada and to the United States, Africa and elsewhere. The company has acquired extensive holdings in the Manitouwadge area of northwestern Ontario and is actively pursuing investigation of favourably located prospects.

RESEARCH

The company's research facilities were active during the year on continuing programs of metallurgical research and development. Special attention was directed to flowsheet requirements for the Strathcona mill, pilot plant studies in the Dominican Republic, and physical metallurgy related to products research and technical services for the Falconbridge sales organization and associated companies.

Among programs carried out for associated companies were flowsheet documentation and pilot plant work for the Tasu mine and for Lake Dufault Mines Limited. Special projects were also carried out for Opemiska Copper Mines (Quebec) Limited, Industrial Minerals of Canada Limited, and La Luz Mines Limited.

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CONSOLIDATED WHOLLY-OWNED SUBSIDIARIES NOT ENGAGED IN NICKEL OPERATIONS

ANYOX METALS LIMITED

In the latter part of 1964, after converting the mining operation from open pit to underground, this property, located on Vancouver Island, was put back into production by the lessee, Zeballos Iron Mines Limited, with the result that Anyox received increased royalties during the year.

Financial	Year ended December 31	
	1964	1963
Royalties received		
less paid	\$49,000	\$19,000

Management

President P. N. Pitcher, Toronto, Ontario.
Vice-President and General
Manager W. J. Tough, Vancouver, B.C.
Mine Manager C. E. G. Brown, Zeballos, B.C.

FAHRALLOY CANADA LIMITED

Production during the year was at the highest level in the company's history. Profit before income taxes reached a record \$878,000 as compared with \$555,000 in 1963. Expanded plant facilities placed in service in 1963 demonstrated their efficiency in readily meeting the increased operating level, as well as providing the capability for a future step-up of 30 to 40 per cent in operating rate.

Spectrograph and X-ray equipment were added to the laboratory facilities, pointing the way to improved product and greater operating economies. Staff additions during the year increased the company's total personnel to 375 employees.

Financial	Year ended December 31	
	1964	1963
Profit before income taxes	\$ 878,000	\$ 555,000
Working capital	2,216,000	1,468,000

Management

President and Managing
Director T. G. Beament, Orillia, Ontario.
Executive
Vice-President J. A. Wilson, Orillia, Ontario.

WESFROB MINES LIMITED

This subsidiary is developing an iron ore property — known as the Tasu mine — on Moresby Island, one of the Queen Charlotte group in British Columbia.

Proven ore reserves at year-end amounted to about 25,000,000 tons grading 41.33% iron. Of this total, the No. 3 zone contained about 6,800,000 tons grading 47.65% iron and 0.66% copper. In addition, surface diamond drilling has indicated about 15,000,000 tons of probable ore grading 44.7% iron to the west of the main ore zone.

A sales contract for iron and copper concentrates has been negotiated with Mitsubishi Shoji Kaisha. This agreement is for a period of 10 years and calls for annual shipments of 550,000 tons of pellet feed and 400,000 tons of sinter feed annually. Shipments are scheduled to start towards the end of 1966.

Clearing of the area has been completed and a contract has been let for waste rock removal, certain underground workings and plant site excavation. Construction of a 6-mile road across Moresby Island is in progress.

Detailed engineering design of the townsite, mine plant and milling facilities is now under way.

Expenditures in connection with this property in the year amounted to \$4,701,000.

Management

President P. N. Pitcher, Toronto, Ontario.
Vice-President W. J. Tough, Vancouver, B.C.
Mine Manager F. A. Godfrey, Vancouver, B.C.

FALCONBRIDGE NICKEL MINES LIMITED
AND ITS WHOLLY-OWNED SUBSIDIARIES

STATEMENTS OF CONSOLIDATED EARNINGS AND
RETAINED EARNINGS

FOR THE YEAR ENDED DECEMBER 31, 1964
(with comparative figures for the year 1963)

EARNINGS

	1964	1963
Metal sales and other operating revenues	\$80,306,000	\$59,764,000
Cost of sales and operating expenses other than the under-mentioned items	\$49,284,000	\$36,290,000
Selling, general and administrative expenses (including remuneration of directors as such of \$39,500 in 1964 and \$36,700 in 1963)	3,717,000	3,181,000
	<u>\$53,001,000</u>	<u>\$39,471,000</u>
Operating profit from nickel operations before providing for development expenditures and depreciation	\$27,305,000	\$20,293,000
Development expenditures (note 4)	\$ 898,000	\$ 1,768,000
Depreciation (including net gain or loss on disposal of fixed assets)	2,408,000	2,170,000
	<u>\$ 3,306,000</u>	<u>\$ 3,938,000</u>
Operating profit from nickel operations	\$23,999,000	\$16,355,000
Other income:		
Earnings (net) of wholly-owned subsidiaries not engaged in nickel operations (note 8)	1,012,000	409,000
Dividends received from:		
Partially-owned subsidiaries	5,023,000	915,000
Other companies	3,877,000	2,617,000
Income from investment in short-term securities	2,155,000	2,181,000
	<u>\$36,066,000</u>	<u>\$22,477,000</u>
Other deductions from income:		
Interest on long-term liabilities	\$ 171,000	\$ 276,000
Expenditures on exploration	2,243,000	2,542,000
Expenditures on research and process development	2,187,000	2,071,000
	<u>\$ 4,601,000</u>	<u>\$ 4,889,000</u>
Earnings before taxes based on income	\$31,465,000	\$17,588,000
Taxes based on income — estimated (note 9)	6,500,000	3,300,000
Earnings for the year	<u>\$24,965,000</u>	<u>\$14,288,000</u>

RETAINED EARNINGS

Balance at beginning of year	\$65,971,000	\$64,702,000
Add: Earnings for the year	24,965,000	14,288,000
Gain (net) on the disposal of investments in subsidiary and other companies less \$938,000 written off such investments in 1963	3,273,000	584,000
	<u>\$94,209,000</u>	<u>\$79,574,000</u>
Deduct: Dividends paid	\$13,617,000	\$12,103,000
Amount appropriated as reserve for investment in mining companies (note 7)	1,500,000	1,500,000
	<u>\$15,117,000</u>	<u>\$13,603,000</u>
Balance at end of year	<u>\$79,092,000</u>	<u>\$65,971,000</u>

See Notes to Consolidated Financial Statements

FALCONBRIDGE NICKEL MINES LIMITED
AND ITS WHOLLY-OWNED SUBSIDIARIES

CONSOLIDATED BALANCE SHEET

(with comparative figures for 1963)

ASSETS		1964	1963
CURRENT:			
Cash		\$ 1,937,000	\$ 1,770,000
Government and other marketable securities at cost (market value, 1964 — \$33,133,000; 1963 — \$38,462,000)		32,715,000	37,952,000
Accounts receivable		20,781,000	17,234,000
Inventories at the lower of cost or market (note 3)		13,448,000	22,747,000
		<u>\$ 68,881,000</u>	<u>\$ 79,703,000</u>
INVESTMENT IN UNCONSOLIDATED SUBSIDIARY AND OTHER COMPANIES at cost less amounts written off:			
Subsidiary companies (note 1)			
Shares		\$ 25,944,000	\$ 15,542,000
Advances and debentures		9,306,000	7,296,000
		<u>\$ 35,250,000</u>	<u>\$ 22,838,000</u>
Other companies			
Shares		\$ 29,337,000	\$ 25,289,000
Advances and debentures		534,000	389,000
		<u>\$ 29,871,000</u>	<u>\$ 25,678,000</u>
		<u>\$ 65,121,000</u>	<u>\$ 48,516,000</u>
FIXED:			
Plant and equipment at cost		\$101,172,000	\$ 94,573,000
Less accumulated depreciation		79,372,000	76,952,000
		<u>\$ 21,800,000</u>	<u>\$ 17,621,000</u>
Mining and other property at cost		4,886,000	4,354,000
		<u>\$ 26,686,000</u>	<u>\$ 21,975,000</u>
OTHER:			
Supplies (at average cost) and prepaid expenses		\$ 4,562,000	\$ 4,331,000
Deposits, long-term accounts receivable and other assets		722,000	524,000
Preproduction expenses deferred (note 4)		6,972,000	3,261,000
		<u>\$ 12,256,000</u>	<u>\$ 8,116,000</u>
		<u>\$172,944,000</u>	<u>\$158,310,000</u>

See Notes to Consolidated Financial Statements

AUDITORS

To the Shareholders of
Falconbridge Nickel Mines Limited:

We have examined the consolidated balance sheet of Falconbridge Nickel Mines Limited and its wholly-owned subsidiaries as at December 31, 1964, and the statements of consolidated earnings and retained earnings for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, the accompanying consolidated balance sheet and statements of consolidated earnings and retained earnings present fairly the financial position of the companies as at December 31,

STATEMENT OF FINANCIAL POSITION DECEMBER 31, 1964

(as at December 31, 1963)

LIABILITIES

CURRENT:

	1964	1963
Accounts payable and accrued charges	\$ 7,681,000	\$ 5,543,000
Portion of long-term liability payable within one year ..	1,000,000	2,000,000
Income and other taxes payable (estimated)	1,369,000	2,492,000
	<u>\$ 10,050,000</u>	<u>\$ 10,035,000</u>

LONG TERM:

5¼ % first mortgage and collateral trust sinking fund bonds, series A, due August 15, 1966	\$ 2,000,000	\$ 4,000,000
Less amount payable within one year included under current liabilities	1,000,000	2,000,000
	<u>\$ 1,000,000</u>	<u>\$ 2,000,000</u>

SHAREHOLDERS' EQUITY:

Capital (note 6)

Authorized: 5,000,000 shares of no par value		
Issued: 4,871,258 shares (1963 — 4,852,260 shares)	\$ 78,302,000	\$ 77,304,000
Retained earnings	79,092,000	65,971,000
Reserve for investment in mining companies (note 7) ..	4,500,000	3,000,000
	<u>\$161,894,000</u>	<u>\$146,275,000</u>

On behalf of the Board:

H. J. FRASER, Director.

R. B. WEST, Director.

\$172,944,000 \$158,310,000

Financial Statements

REPORT

1964, and the results of their operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Our examination also included the accompanying statement of consolidated source and application of funds which, in our opinion, when considered in relation to the aforementioned financial statements, presents fairly the sources and applications of funds of the companies for the year ended December 31, 1964.

Toronto, Canada,
March 9, 1965.

CLARKSON, GORDON & CO.
Chartered Accountants.

FALCONBRIDGE NICKEL MINES LIMITED
AND ITS WHOLLY-OWNED SUBSIDIARIES

STATEMENT OF CONSOLIDATED SOURCE AND
APPLICATION OF FUNDS

FOR THE YEAR ENDED DECEMBER 31, 1964

SOURCE OF FUNDS:

Funds generated within the company		
Earnings	\$24,965,000	
Depreciation — a charge against operations which in itself did not require a cash outlay during the year	2,590,000	
	<u>\$27,555,000</u>	
Less dividends paid	13,617,000	\$13,938,000
Funds derived from outside sources		
Issue of shares	\$ 998,000	
Less reduction in long term liabilities	1,000,000	(2,000)
		<u>\$13,936,000</u>

APPLICATION OF FUNDS:

Investment in plant and in mines to be brought into production in future years		\$11,012,000
Investment in unconsolidated subsidiary and other companies	\$18,685,000	
Less realizations on disposal	5,353,000	13,332,000
Other items (net)		429,000
		<u>\$24,773,000</u>

Decrease in funds during the year represented by the
following reduction in working capital:

Working capital at December 31, 1963	\$69,668,000	
Working capital at December 31, 1964	58,831,000	<u>\$10,837,000</u>

NOTES TO CONSOLIDATED FINANCIAL
STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 1964

1. The consolidated financial statements for 1964 reflect the financial position and the results of operations of Falconbridge Nickel Mines Limited and all its wholly-owned subsidiary companies. The partially owned subsidiaries have not been consolidated as it is the company's view that a more intelligent appraisal of its financial position may be obtained from the attached consolidated financial statements together with the information supplied on pages 18 to 27 with respect to the more important unconsolidated subsidiary and other companies. The earnings of the unconsolidated subsidiary companies are included in income to the extent of dividends received; such dividends were \$2,080,000 less than the company's share of the aggregate profits less losses of the subsidiaries for their financial years ended in 1964. The company's share of the aggregate of the accumulated profits less losses of these subsidiaries from date of acquisition to the end of their 1964 financial years not taken up in the parent company's accounts amounted to approximately \$2,581,000.
2. Assets and liabilities in currencies other than Canadian dollars have been translated into Canadian dollars at current quoted rates of exchange at December 31, 1964 except fixed assets and the related accumulated

depreciation which have been translated at the rates prevailing when the expenditures on fixed assets were made. Revenues and expenses in currencies other than Canadian dollars have been translated into Canadian dollars at the average monthly quoted rates of exchange except that provisions for depreciation have been translated at the rates prevailing when the expenditures on the related fixed assets were made.

3. Inventories consist of the following:

Falconbridge Nickel Mines Limited —	1964	1963
Refined metals	\$ 4,969,000	\$10,231,000
Matte and metals in process	7,701,000	11,930,000
	<u>\$12,670,000</u>	<u>\$22,161,000</u>
Fahralloy Canada Limited —		
Materials and work in process	778,000	586,000
	<u>\$13,448,000</u>	<u>\$22,747,000</u>

The cost of inventories derived from the company's own ore (\$10,601,000 in 1964) has been determined on a "last-in, first-out" basis; the cost of inventories derived from other sources (\$2,069,000 in 1964) has been determined on a "first-in, first-out" basis. The inventories of Fahralloy Canada Limited are valued at average cost.

4. It is the companies' practice to defer preproduction expenditures (being the expenditures other than capital made for the purpose of bringing a new mine into production) until the new mines come into production after which time they will be written off in an appropriate manner. No development expenditures (which are incurred by producing mines) were deferred at December 31, 1963 or 1964 as these expenditures are written off as incurred (with a limitation of \$2.00 per ton of company ore treated).
5. There are commitments outstanding in connection with construction in progress and development and exploration amounting to approximately \$6,850,000. In addition there are contingent liabilities under guarantees of \$450,000.
6. In 1959 the company reserved 75,000 of its unissued shares for the purpose of granting to officers and employees of the company and its subsidiaries options to purchase shares of the company at \$25.00 each (the approximate market price at the date these shares were reserved); in 1964 the option price with respect to those shares (29,000) on which options had not been previously granted was altered by resolution of the Board of Directors to 90 percent of the market price at the close of business on the day preceding the granting of the option. Options on these shares (29,000) were subsequently granted at \$61.75 per share. Under the terms of an agreement whereby on January 31, 1962, Falconbridge purchased all the assets of Ventures Limited and assumed all the liabilities and obligations of Ventures, the company assumed an obligation to issue shares of its unissued capital stock under the terms of warrants issued to Ventures' debenture-holders. The shares issued during 1964 and the position at December 31, 1964 in respect of these options and warrants are summarized as follows:

	Shares issued during 1964	Shares subject to issue under options and warrants outstanding at December 31, 1964
Under options exercisable on or before May 31, 1969 —		
at \$25.00 per share	2,000	3,000
at \$61.75 per share	14,500	14,500
Under warrants exercisable on or before October 1, 1969 —		
at U.S. \$19.23 per share	1,466	4,670
at U.S. \$20.00 per share	1,032	11,705
	<u>18,998</u>	<u>33,875</u>

7. The reserve for investment in mining companies was increased by \$1,500,000 during 1964 by a transfer of this amount from retained earnings.
8. The net earnings shown for wholly-owned subsidiary companies not engaged in nickel operations are after deducting directors' fees of \$3,000 (1963 — \$3,000), depreciation of \$206,000 (1963 — \$151,000) and income taxes of \$23,000 (1963 — \$205,000).
9. Income taxes for 1964 and 1963 have been reduced by approximately \$2,500,000 in each year as a result of claiming for tax purposes depreciation and preproduction expenditures greater than the amounts written in the companies' accounts. In prior years the accumulated amounts of depreciation and preproduction expenditures written in the companies' accounts exceeded the amounts claimed for tax purposes. This position was reversed during 1964 and as at December 31, 1964 the accumulated tax reductions in this respect amount to approximately \$1,500,000. Income taxes may be increased correspondingly in those future years when the amounts claimable for tax purposes for depreciation and preproduction expenditures will be less than the amounts written in the companies' accounts.

FALCONBRIDGE NICKEL MINES LIMITED
AND ITS WHOLLY-OWNED SUBSIDIARIES

STATEMENT OF CONSOLIDATED
UNCONSOLIDATED SUBSIDIARY AND OTHER COMPANIES
(with comparative figures for 1963)

	Number of shares or par value	% of outstanding capital
SUBSIDIARY COMPANIES		
Acton Limestone Quarries Limited	386,000	53.9
Alminex Limited (note B)	3,863,871	50.8
Canadian Malartic Gold Mines Limited	1,987,675	54.4
Dominion Magnesium Limited (note B)	263,004	55.2
Empire Ventures Limited		
Class A shares (note C)	500	58.8
Class B shares (note C)	10,000	58.8
6% debentures due March 31, 1970	US \$1,008,506	
6% demand note	\$ 27,500	
Horne Fault Mines Limited (note D)	1,752,841	55.4
Industrial Minerals of Canada Limited	610,932	74.5
Kiena Gold Mines Limited		
Preferred shares (notes C and D)	1,873,739	100.0
Common shares	3,331,203	68.3
6% income debentures due December 31, 1977-1978	\$ 250,000	
Kilembe Copper Cobalt Ltd.	3,004,827	77.5
Lake Dufault Mines Limited		
Common shares	2,111,630	51.1
4½% income debentures due December 31, 1974	\$6,000,000	
La Luz Mines Limited	1,001,254	63.3
New Pascalis Mines Limited (note D)	735,494	61.3
Q.M.I. Minerals Limited	624,364	61.7
The Tonopah Mining Company of Nevada (note E)		
Zeballos Iron Mines Limited (note F)		
5% income debenture due December 31, 1970	\$1,500,000	
6% series B bond due March 31, 1970	US \$ 450,000	
Miscellaneous shareholdings and advances		
OTHER COMPANIES		
Akaitcho Yellowknife Gold Mines Limited	1,198,230	36.7
Canada Tungsten Mining Corporation		
Common shares	585,000	11.8
6% debentures due December 31, 1971	\$ 389,136	
6% demand note	\$ 145,200	
First Maritime Mining Corporation Limited (note G)	120,980	2.4
Giant Yellowknife Mines Limited	1,080,809	25.1
Joliet-Quebec Mines Limited	1,128,800	22.0
Marbridge Mines Limited (note C)	1,500,000	50.0
McIntyre Porcupine Mines Limited	175,825	7.4
Metal Hydrides Incorporated	162,538	45.0
Opemiska Copper Mines (Quebec) Limited	1,993,236	36.1
Pine Point Mines Limited	46,121	1.2
Thompson-Lundmark Gold Mines Limited	600,000	12.0
United Keno Hill Mines Limited	1,195,989	48.4
Miscellaneous shareholdings and advances		
Total		

NOTES:

- The market values shown are based on closing market prices at December 31, 1964 and December 31, 1963. Because of the number of shares involved the amounts that would be realized if certain of these securities were to be sold may be less than the indicated market values of these securities. In those instances, however, where the securities listed above represent control of the companies concerned the amounts that could be realized on disposal may be more than their indicated market values.
- Alminex Limited and Dominion Magnesium Limited, classified as "Other Companies" in 1963, became "Subsidiary Companies" in 1964. The 1963 classification for these companies has been restated for comparative purposes.
- As the preferred shares of Kiena Gold Mines Limited and the shares of Empire Ventures Limited and Marbridge Mines Limited are not traded, market values are not available.

INDICATED INVESTMENT IN
 ER COMPANIES AS AT DECEMBER 31, 1964
 as at December 31, 1963)

1964

SHARES

Indicated market value (note A)	Advances and debentures
\$ 463,000	
16,035,000	
1,451,000	
2,630,000	
	\$1,084,000
	28,000
193,000	
5,498,000	
15,823,000	215,000
21,635,000	
26,923,000	6,000,000
9,562,000	
368,000	
949,000	
	1,500,000
	300,000
93,000	179,000
<u>\$101,623,000</u>	<u>\$9,306,000</u>
\$ 1,018,000	
632,000	
	\$ 389,000
	145,000
472,000	
17,833,000	
373,000	
12,132,000	
1,242,000	
16,743,000	
1,522,000	
306,000	
11,182,000	
650,000	
<u>\$ 64,105,000</u>	<u>\$ 534,000</u>
<u>\$165,728,000</u>	<u>\$9,840,000</u>

1963

SHARES

Number of shares or par value	% of outstanding capital	Indicated market value (note A)	Advances and debentures
386,000	53.9	\$ 772,000	
3,663,871	49.0	9,453,000	
1,987,675	54.4	875,000	
213,004	44.7	1,651,000	
500	58.8		
10,000	58.8		
US\$1,008,506			\$1,084,000
1,658,861	54.1	249,000	
224,020	54.6	1,624,000	
938,297	100.0		
3,331,203	68.3	12,825,000	
\$ 150,000			115,000
3,056,427	78.8	9,016,000	
2,111,630	51.1	15,834,000	
\$6,000,000			6,000,000
1,107,186	70.0	4,761,000	
523,098	53.0	246,000	
605,892	59.9	757,000	
578,415	74.1	2,499,000	
		93,000	97,000
		<u>\$60,655,000</u>	<u>\$7,296,000</u>
1,198,230	36.7	\$ 575,000	
689,364	14.0	565,000	
\$ 389,136			\$ 389,000
638,700	6.4	319,000	
1,080,809	25.1	11,619,000	
1,128,800	22.0	260,000	
1,500,000	50.0		
162,538	47.7	1,448,000	
1,993,236	36.1	15,547,000	
42,705	1.2	790,000	
600,000	12.0	276,000	
1,195,983	48.4	6,040,000	
		588,000	
		<u>\$38,027,000</u>	<u>\$ 389,000</u>
		<u>\$98,682,000</u>	<u>\$7,685,000</u>

- D. The shares of Horne Fault Mines Limited and New Pascalis Mines Limited and the preference shares of Kiena Gold Mines Limited include shares that Falconbridge was entitled to receive as at December 31, 1964 and 1963 under agreements with such companies which provided for the issuance of shares to Falconbridge as consideration for any exploration work carried out by Falconbridge on the properties of such companies.
- E. During the year The Tonopah Mining Company of Nevada was liquidated and its net assets were distributed to its shareholders.
- F. Zeballos Iron Mines Limited is a subsidiary of Empire Ventures Limited.
- G. During the year the name of Maritimes Mining Corporation Limited was changed to First Maritime Mining Corporation Limited and its issued shares were consolidated pro rata on the basis of two new shares for five old shares.

COMMENTS ON THE MORE IMPORTANT UNCONSOLIDATED SUBSIDIARY AND ASSOCIATED COMPANIES

The Statement of Consolidated Investment by Falconbridge Nickel Mines Limited in Unconsolidated Subsidiary and Other Companies as at December 31, 1964, appears on pages 16 and 17 herewith.



ACTON LIMESTONE QUARRIES LIMITED

As a producer of crushed limestone aggregates, Acton is one of several companies operating in the Metropolitan Toronto market. Competition has been intense, driving prices unreasonably low. Late in 1964 some strengthening of prices occurred. During the year the company sold in excess of 1,000,000 tons.

While the company's market position is now established and growth may be anticipated the company is burdened with an unduly heavy debt structure relative to its volume of sales. As a result of both the intense competition experienced to date and the additional capital expenditures incurred to strengthen the company's competitive position it has been necessary to arrange financing through a bank loan which at December 31, 1964, amounted to \$1,231,000. In addition, the company owed \$2,400,000 in 6½ % first mortgage bonds.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	716,000	386,000	53.9%

Debt

6½ % first mortgage sinking fund bonds due May 15, 1982 . .	\$2,400,000
Bank loan	\$1,231,000

Financial

Audited figures for 1964 were not available at the date of this report.

Management

President	F. G. GARDINER, Toronto
Vice-President	J. J. MATHER, Toronto
General Manager	G. E. ARMSTRONG, Toronto

ALMINEX LIMITED

Alminex is a medium-sized Canadian producer of oil, condensate and natural gas, operating principally in Alberta. Its land holdings include properties in the Hondo-Mitsue field. Once again production sales and net income were higher in comparison with the previous year. During the year the company commenced dividend distributions paying two dividends of 5 cents each. By year-end bank loans had been reduced by \$600,000 to \$2,528,000.

Primarily as a result of the water-flood recovery system in the Swan Hills area the proven oil reserves increased by 10,612,000 barrels to 37,036,000 barrels after allowing for the year's production. The company is actively engaged in exploration and drilling in several new locations and is taking part in a joint exploration project on sedimentary deposits located under the North Sea.

A change in the pro-rationing of oil production, introduced recently by the Alberta government and effective May 1, 1965, will result in increased future income for the company.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	7,599,161	3,863,871	50.8%

Debt

Outstanding loans at December 31, 1964	\$2,528,000
--	-------------

Production	1964	1963	Increase
Oil and condensate (barrels per day)	2,603	2,537	2.6%
Gas (millions cubic feet per day)	12.704	11.336	12.5%

Reserves	As at December 31	
	1964	1963
Crude oil and natural gas liquids (barrels)	46,640,000	39,120,000
Natural Gas (billions of cubic feet)	143.63	148.87

Financial	Year ended December 31	
	1964	1963
Net production income after royalties and operating expenses	\$2,764,000	\$2,688,000
Profit before write-offs for depreciation, depletion and property surrendered	\$1,834,000	\$1,592,000
Net profit after all charges	\$ 863,000	\$ 315,000
Dividends paid — 10¢ in 1964	\$ 760,000	—

Management

President	F. R. BURTON, Toronto
Vice-President and General Manager	J. B. WEBB, Calgary

CANADIAN MALARTIC GOLD MINES LIMITED

After operating continuously for nearly 30 years the ore reserves were depleted by the end of 1964 and the operations were suspended on January 20, 1965. Over 10,900,000 tons of ore have been mined and treated since the mill was first turned over in May 1935. Crushing of Marbridge ore and treatment in their section of the mill will continue.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	3,651,355	1,987,675	54.4%

Production	Year ended December 31	
	1964	1963
Tons milled	329,000	330,000
Ounces gold produced	32,000	27,000
Ounces silver produced	14,000	26,000

Financial		
Net value of metals produced	\$1,206,000	\$1,052,000
Net profit after all charges	\$ 359,000	\$ 223,000
Working capital (including marketable securities at market value)	\$2,586,000	\$2,069,000

Management

President	J. P. MILLENBACH, Toronto
General Manager	H. C. HERZ, Toronto



DOMINION MAGNESIUM LIMITED

Despite strong competition the company has maintained its world market position. Sales for 1964 were \$6,806,000 as compared with \$6,318,000 for 1963. Production of magnesium crowns was an all-time record of 20,338,000 pounds. Earnings for the year of \$277,000 or 58 cents per share were down from \$411,000 in 1963 when non-recurring income of \$176,000 was realized. Sales of the company's wholly-owned subsidiary, Aerometal Products and Design Limited, located at Toronto, increased by 48 percent to \$324,000.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	476,270	263,004	55.2%

Shipments	Year ended December 31	
	1964	1963
Magnesium — tons	10,300	9,500
Calcium — pounds	138,400	98,600
Thorium — pounds	6,500	7,100

Financial

Net sales	\$6,806,000	\$6,318,000
Profit before depreciation	\$ 609,000	\$ 739,000
Net profit after all charges	\$ 277,000	\$ 411,000
Dividend paid, 50¢ per share	\$ 238,000	\$ 238,000
Working capital	\$3,019,000	\$2,918,000

Management

Chairman of the Board	R. J. JOWSEY, Toronto
Vice-President and General Manager	J. THOMSON, Toronto



GIANT YELLOWKNIFE MINES LIMITED

Tons of ore treated and ounces of gold produced achieved record levels, and earnings were at an all-time high. During the year the company poured its 5000th gold brick marking a bullion value of over \$100,000,000 since the commencement of operations in 1948. Normal mine development continued throughout the year and estimated ore reserves at year-end totalled 2,310,000 tons grading 0.74 ounces of gold per ton.

Giant has undertaken a program of exploration and development on properties owned by Supercrest Mines Limited, which are contiguous to the north boundary of the Giant properties, on a profit-sharing arrangement. Both Giant and Akaitcho Yellowknife Gold Mines Limited own a 50 percent interest in Supercrest.

Capitalization

	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	4,303,050	1,080,809	25.1%

Production

	Year ended December 31	
	1964	1963
Tons milled	401,000	388,000
Gold ounces produced	270,000	246,000

Financial

Net value of metals produced	\$10,120,000	\$9,254,000
Profit before depreciation and amortization	\$ 5,434,000	\$4,586,000
Net profit after all charges	\$ 4,875,000	\$3,989,000
Dividends paid, \$1.00 per share	\$ 4,303,000	\$4,303,000
Working capital	\$ 7,941,000	\$7,090,000

Management

Vice-President and Managing Director	P. N. PITCHER, Toronto
Mine Manager	D. R. DELAPORTE, Yellowknife, N.W.T.

INDUSTRIAL MINERALS OF CANADA LIMITED

Tonnage sold of nepheline syenite during 1964 established a new record exceeding that of 1956, the previous high, by over 6 per cent. Operating profit of \$394,000 was the highest in the company's history but net profit at \$235,000 was somewhat lower than in the previous year. An expanded program of new product development includes special attention to applications in plastics.

During the year the company acquired 92 per cent of the issued shares of Canadian Silica Corporation Limited representing a major move in the company's program of diversification. To finance this acquisition, \$4,100,000 was raised through a rights offer made to the shareholders.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	820,000	610,932	74.5%

Financial	Year ended December 31	
	1964	1963
Sales of all products	\$2,206,000	\$2,000,000
Profit before depreciation and amortization	\$ 651,000	\$ 704,000
Net profit after all charges	\$ 235,000	\$ 278,000
Dividends paid, 50¢ in 1964, 40¢ in 1963	\$ 205,000	\$ 164,000
Working capital	\$1,402,000	\$1,268,000

Management

Executive Vice-President and Managing Director J. J. MATHER, Toronto

General Manager — Production Operations D. C. McDONALD, Nephton, Ont.



KIENA GOLD MINES LIMITED

This property is situated in the Val d'Or district of northwestern Quebec. Following sinking of the development shaft to a depth of 1,324 feet, a total of 6,875 feet of lateral work was done, mainly on the 560, 900 and 1100-foot levels.

During the year 19,509 feet of underground diamond drilling was also carried out. This drilling was confined largely to the 900 and 1100-foot levels and represents about one-third of the footage planned to explore the S-50 orezone to the 1900-foot horizon. Within the limits explored, this initial work has broadly confirmed the surface drill indications.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	4,876,848	3,331,203	68.3%
Preference shares (including shares to be issued)	1,873,739	1,873,739	100.0%

Debt

Income debentures due December 31, 1977-8	\$250,000	\$250,000	100.0%
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Management

President J. P. MILLENBACH, Toronto

Falconbridge Project Manager H. C. HERZ, Toronto

KILEMBE COPPER COBALT LTD.

Kilembe Copper owns 70 per cent of the 5,700,000 outstanding common shares of Kilembe Mines Limited which owns and operates a producing copper mine situated in the southwest corner of Uganda and a smelter at Jinja, Uganda. The shares not owned by Kilembe Copper are owned by Uganda Development Corporation Limited and Commonwealth Development Corporation, both Crown Corporations.

The consolidated net earnings for the year were \$4,156,000 or \$1.07 per share, the highest in the company's history, as compared with \$263,000 or 7 cents per share for 1963. Copper production from Kilembe mine is sold on the basis of prices quoted on the London Metal Exchange which, in 1964, went from a low of £235 per ton in January to a high of £522 per ton in December. As a result of the substantial increase in cash flow the subsidiary redeemed its outstanding indebtedness of close to \$1,800,000. In line with its announced policy the company paid out excess cash income as dividends, which totalled 75 cents per share.

Ore reserves at December 31, 1964 were 4,670,000 tons proven with an average grade of 2.02 per cent copper and 2,203,000 tons probable, grading 2.01 per cent copper. In addition, possible ore reserves are estimated to be 2,700,000 tons with a grade of 1.92 percent copper. Exploration and development programs in the Bukangama Mine and in other ore zones are actively being carried out.

Capitalization — KILEMBE COPPER COBALT LTD.	As at December 31, 1964	
	Outstanding	Held by Falconbridge
Common shares	3,877,027	3,004,827 77.5%

Production — KILEMBE MINES LIMITED	Year ended December 31	
	1964	1963
Tons milled	989,000	988,000
Blister copper produced — long tons	18,000	16,000

Financial — CONSOLIDATED

Net value of metals produced	\$17,451,000	\$9,812,000
Profit before amortization and depreciation	\$ 8,580,000	\$2,811,000
Profit before minority interest	\$ 5,927,000	\$ 362,000
Net profit after all charges and minority interests	\$ 4,156,000	\$ 263,000
Dividend paid, 75¢ in 1964 and 25¢ in 1963	\$ 2,908,000	\$ 969,000
Working capital (deficit)	\$ 1,171,000	\$ (142,000)

Management

Kilembe Copper Cobalt Ltd. President	G. T. N. WOODROOFFE, Toronto
Kilembe Mines Limited Chairman	H. S. MCGOWAN, Toronto
Managing Director	A. E. PUGSLEY, Uganda

LA LUZ MINES LIMITED

The combined effect of the dramatic increase in the price of copper on the London Metal Exchange and the reduced operating costs resulting from the conversion in February from the treatment of copper oxide ore to sulphide ore produced a profit for La Luz and its wholly-owned subsidiary Rosita Mines Limited of \$3,584,000 in its financial year ended September 30, 1964. A loss of \$102,000 was shown for the previous year. The excellent financial results enabled the company to repay all its indebtedness and to resume dividend distributions amounting to 75 cents per share in its financial year. A further dividend of \$1.25 per share was paid in December.

After treating 222,000 tons the copper ore reserves were increased at year-end to 1,380,000 tons grading 3.81 per cent copper as compared with 927,000 tons grading 4.45 per cent copper in the previous year. Ore reserves for the gold operation were down 140,000 tons to 4,814,000 tons grading 0.102 ounces per ton at year-end.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	1,580,759	1,001,254	63.3%

Production	Year ended September 30	
	1964	1963
Tons gold ore milled	693,000	696,000
Ounces gold produced	66,000	67,000
Tons copper ore milled	222,000	268,000
Pounds copper produced	18,371,000	16,910,000

Financial — CONSOLIDATED

	(in U.S. funds)	
Net value of metals produced		
Gold	\$ 2,314,000	\$ 2,345,000
Copper	\$ 7,046,000	\$ 4,240,000
Profit before amortization and depreciation	\$ 4,602,000	\$ 1,340,000
Net profit (loss) after all charges	\$ 3,584,000	\$ (102,000)
Dividends paid, 75¢ Cdn. in 1964	\$ 1,091,000	—
Working capital	\$ 4,411,000	\$ 725,000

Management

President	H. S. MCGOWAN, Toronto
Manager, La Luz Mine	J. PLECASH, Nicaragua
Manager, Rosita Mine	R. V. HOPPER, Nicaragua

LAKE DUFAULT MINES LIMITED

Preparations for production at the company's copper-zinc property in the Noranda area were completed on schedule. The treatment plant was placed in operation in mid-August and was operating at full production by October 1st. Cash profits since commencement of operations have been sufficient to enable the company to repay in March 1965, almost half of the \$6,000,000 advanced by Falconbridge in 1963 to bring the property into production.

Ore reserves were increased following the outlining of the lower portion of the disseminated copper zone and at December 31, 1964 were 2,189,500 tons, averaging 3.9% copper, 7.0% zinc,

2 ounces per ton silver and 0.03 ounces per ton gold. The surface diamond drilling program conducted during the year yielded much valuable geological information, although no further orebodies were discovered. This program will be continued during 1965.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	4,134,750	2,111,630	51.1%

Debt

Income debenture due December 31, 1974	\$6,000,000	\$6,000,000	100.0%
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Financial

	1964
Net value of metals produced	\$3,976,000
Profit before amortization and depreciation	\$2,886,000
Net profit after all charges	\$2,375,000

Management

President	J. P. MILLENBACH, Toronto
Mine Manager	J. R. SMITH, Noranda, Quebec



METAL HYDRIDES INCORPORATED

Increases in sales of metals and research materials by Metal Hydrides were more than offset by decreases in sales of sodium borohydride and lithium aluminum hydride products. Efforts are continuing to expand present uses of the sodium borohydride products and research is continuing in an effort to develop new uses.

During 1964 Metal Hydrides acquired 100% of the issued capital of Allegheny Electronic Chemicals Company in exchange for 25,003 shares. Allegheny, located in Bradford, Pennsylvania, is a producer of various forms of ultra-pure silicon, which are used in the manufacture of "solid state" electronic devices such as transistors, diodes, rectifiers, and solar cells. It also designs and manufactures electronic systems, including remote control systems employing radio frequencies.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	360,798	162,538	45.0%

Financial

	Year ended December 31	
	1964*	1963
	(in U.S. funds)	
Net sales	\$3,150,000	\$2,321,000
Net profit after all charges	\$ 156,000	\$ 148,000
Working capital	\$2,573,000	\$2,613,000

* Consolidated figures.

Management

President	M. C. LAUENSTEIN, JR., Beverly, Mass.
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OPEMISKA COPPER MINES (QUEBEC) LIMITED

The company's property is situated in the Chibougamau district of northwestern Quebec. While tonnage milled was higher than 1963 the grade of ore treated was lower. The reduction in copper produced was offset by an improvement in the average price received of 1.2 cents which accounted for the increase in earnings from \$2,932,000 in 1963 to \$3,025,000 for 1964. Dividend payments amounted to 55 cents per share compared with 45 cents for 1963. The company's working capital was further increased to \$7,974,000 at year-end.

Development of the company's Perry Mine is nearing completion and production is scheduled to begin in the fourth quarter of 1965.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	5,515,000	1,993,236	36.1%

Production	Year ended December 31	
	1964	1963
Tons ore milled	749,000	738,000
Pounds copper produced	40,710,000	41,691,000
Ounces gold produced	17,000	17,000
Ounces silver produced	282,000	277,000

Financial		
Net value of metals produced	\$10,986,000	\$10,678,000
Profit before amortization and depreciation	\$ 4,003,000	\$ 4,260,000
Net profit after all charges	\$ 3,025,000	\$ 2,932,000
Dividend paid, 55¢ in 1964, 45¢ in 1963	\$ 3,033,000	\$ 2,482,000
Working capital	\$ 7,974,000	\$ 7,197,000

Management

President	J. P. MILLENBACH, Toronto
General Manager	H. C. HERZ, Toronto
Mine Manager	F. G. COOKE, Chapais, Quebec

UNITED KENO HILL MINES LIMITED

United Keno changed its financial year-end to December 31, and its financial results reflect operations for a fifteen month period. Higher average prices received during the period for silver and base metals assisted the company in achieving record earnings of \$2,705,000. In addition to the regular quarterly dividend of 10¢ per share an extra dividend of 20¢ per share was paid; total dividend payments were 70¢ per share for the period as compared to 40¢ for the year ended September 30, 1963.

The average grade of mill feed was lower with respect to silver but higher in both lead and zinc as compared with 1963. Ore reserves were down slightly at year-end to 459,000 tons averaging 34.1 ounces per ton of silver, 6.9% lead and 6.2% zinc.

Capitalization	As at December 31, 1964		
	Outstanding	Held by Falconbridge	
Common shares	2,470,000	1,195,989	48.4%

	Period ended	
	December 31, 1964 (15 months)	September 30, 1963 (12 months)
Production		
Tons ore milled	228,000	187,000
Ounces silver produced	7,271,000	5,978,000
Pounds lead produced	26,305,000	16,751,000
Pounds zinc produced	19,965,000	14,760,000
Pounds cadmium produced	245,000	200,000
Financial		
Net value of metal produced	\$12,700,000	\$8,806,000
Expenditures on exploration and development	\$ 1,194,000	\$1,030,000
Profit before depreciation	\$ 3,252,000	\$1,442,000
Net profit after all charges	\$ 2,705,000	\$ 991,000
Dividends paid — 70¢ in fifteen months ended December 31, 1964 and 40¢ in twelve months ended September 30, 1963	\$ 1,729,000	\$ 988,000
Working capital	\$ 5,564,000	\$4,530,000

Management

Vice-President and Managing Director P. N. PITCHER, Toronto
General Manager A. E. PIKE, Elsa, Yukon Territory

Falconbridge helicopter freighting in a Diesel drill to company property at Banks Island, B.C. ▼





TEN-YEAR REVIEW OF FINANCIAL

ORE RESERVES — (tons)

* See page 4 — Report of the Directors

OPERATIONS

Metal deliveries (pounds)	
Nickel	
Copper	
Metal sales and other operating revenues	
Operating profit from nickel operations before write-offs	
Income from investments	
Development and preproduction expenditures written off	
Depreciation	
Expenditures on exploration, research and process development	
Interest on long term liability	
Taxes based on income	
Earnings	
Amount per share	

DIVIDEND RECORD

Amount paid per share	
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CAPITAL EXPENDITURES (Nickel Operations)

Plant and equipment	
Development and preproduction	

FINANCIAL POSITION

Working capital	
Investment in subsidiary and other companies	
Plant and properties — net	
Long term debt less amount included under current liabilities	
Shareholders' equity	
Amount per share	
Shares outstanding at end of year	

FALCONBRIDGE NICKEL MINES LIMITED
AND ITS WHOLLY-OWNED SUBSIDIARIES

DATA (in thousands)

1964	1963	1962	1961	1960	1959	1958	1957	1956	1955
52,236*	51,322	48,263	46,247	46,089	46,182	43,893	45,776	45,259	39,848
78,485	53,245	61,061	65,546	65,002	58,413	48,509	46,880	43,384	41,137
25,102	28,690	33,831	38,817	36,012	32,728	30,896	25,228	26,422	21,832
\$80,306	\$59,764	\$73,760	\$76,312	\$70,562	\$64,147	\$56,756	\$57,920	\$49,869	\$48,108
27,305	20,293	33,419	34,015	32,143	28,228	25,051	26,813	19,437	17,880
11,055	5,713	5,225	2,122	1,192	732	369	234	308	84
898	1,768	2,991	3,504	2,862	4,466	7,675	7,018	3,236	2,519
2,384	2,355	5,918	9,811	9,722	9,538	6,516	5,876	5,134	4,030
4,430	4,613	5,190	3,394	1,872	1,951	1,463	1,742	2,439	1,859
171	276	479	776	1,092	1,342	1,519	1,583	1,591	1,134
6,500	3,300	5,050	2,200	2,250	3,400	1,400	635	302	350
24,965	14,288	19,833	16,968	16,065	8,448	7,053	9,953	7,164	8,072
\$ 5.12	\$ 2.94	\$ 4.11	\$ 4.49	\$ 4.26	\$ 2.25	\$ 1.88	\$ 2.65	\$ 1.91	\$ 2.15
2.80	\$ 2.50	\$ 2.50	\$ 1.70	\$ 1.50	\$ 1.20	\$ 1.20	\$ 1.20	\$ 1.20	\$ 1.10
3,855	\$ 2,893	\$ 4,770	\$ 6,309	\$ 4,522	\$ 1,754	\$ 3,264	\$ 8,451	\$11,435	\$ 9,218
2,589	3,901	3,407	3,504	2,339	2,500	4,089	5,863	4,355	3,695
58,831	\$69,668	\$75,380	\$45,848	\$37,547	\$27,959	\$18,819	\$13,939	\$12,445	\$17,572
65,121	48,516	44,755	3,221	1,943	1,555	2,599	2,702	2,403	2,727
26,686	21,975	20,749	20,414	24,167	29,389	37,288	40,670	38,185	31,952
1,000	2,000	4,000	6,000	11,000	17,092	23,125	27,125	30,125	30,717
61,894	146,275	142,834	68,304	57,399	46,716	42,770	40,225	34,779	32,412
33.23	\$ 30.15	\$ 29.61	\$ 18.06	\$ 15.24	\$ 12.44	\$ 11.39	\$ 10.71	\$ 9.26	\$ 8.63
4,871	4,852	4,824	3,781	3,767	3,756	3,756	3,756	3,756	3,756



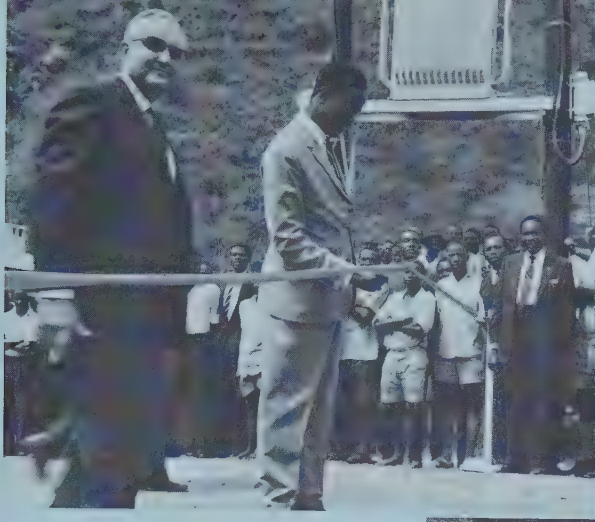
TASU IRON ORE PROJECT — Wesfrob Mines Limited, a wholly-owned subsidiary, is developing a major iron ore property - the Tasu mine - on Moresby Island, one of the Queen Charlotte group in British Columbia. It will supply iron and copper concentrates under a contract negotiated with the Mitsubishi interests of Japan. Shown above is a general view of the main camp site. An indication of the remoteness of the site and the difficult terrain to be cleared and developed is shown below. The \$25,000,000 project is scheduled to go into production and begin making shipments towards the end of 1966.



▲ Flying in Project Supplies.

▼ Preliminary site clearing, 1964.





NEW TOWNSITE, KILEMBE MINES — Official opening of a modern townsite, Kyunjuki Township, Uganda, was an important event in October 1964 for Kilembe Mines Limited. Shown here as he cuts the ceremonial ribbon is the Honourable G. B. Magezi, representing the Government of Uganda. On the platform with the guest of honour is company Managing Director A. E. Pugsley.

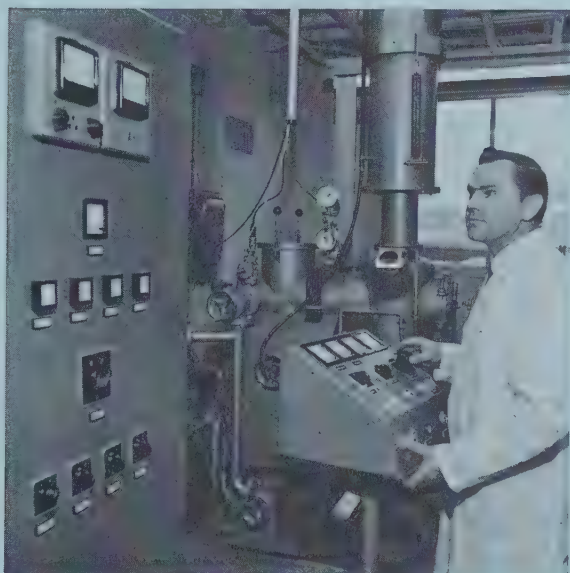
The new housing estate was built by Kilembe Mines Limited. It provides accommodation for more than 360 African employees and their families.



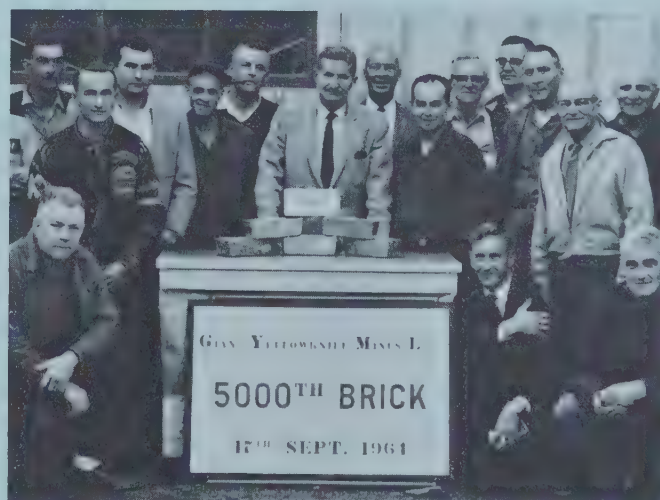
LAKE DUFALT CEREMONY — Canada's Minister of Mines and Technical Surveys, the Honourable W. M. Benidickson, pulls the switch to inaugurate production at Lake Dufault mine and mill, near Noranda, Quebec. Witnessing the official act is Mine Manager J. R. Smith.



NEW LABORATORY UNIT — Shown below is the consumable electrode arc melting furnace in the Falconbridge metallurgical laboratories at Thornhill, Ontario. The unit is also equipped for arc melting with non-consumable electrode.



MILESTONE FOR GIANT YELLOWKNIFE — The pouring of the 5,000th gold brick by Giant Yellowknife Mines Limited, in the Northwest Territories, was a significant occasion during the year. Shown at the mine site with the historic gold brick are Vice-President and Managing Director P. N. Pitcher and company personnel.



MARKETING ACTIVITIES

The continued expansion of Falconbridge marketing activities was reflected in appreciably increased sales during 1964, of not only its main product, nickel, but also of most of its secondary products. While it is estimated that Free World consumption of nickel in 1964 was 22 per cent higher than in 1963, shipments by the company in 1964 were some 47 per cent higher than in the preceding year.

It is significant that the gain in nickel sales was achieved as a result of increased sales in newer commercial markets for the company, particularly North America, as well as in Europe which has been a traditionally strong market for Falconbridge nickel. Successful penetration of the newer markets is essential to the company's long-term marketing plans, and the current wide acceptance of Falconbridge products is an important step in this direction.

The growth rate in nickel continues to be strongly upward, with an estimated average long-term annual growth rate of about 5½ per cent. The sales momentum developed by the company in 1964 has continued into the current year to date.

Nickel and cobalt prices remained unchanged throughout 1964, while prices for copper increased by approximately 10 per cent. Platinum metals prices improved substantially.

It is vital for the company to keep abreast of technological changes in the marketplace. As examples, a trend in the steel industry to greater use of relatively lower priced forms of nickel, and demands for higher quality by the producers of specialty nickel alloys, offer both challenges and opportunities for nickel suppliers.

Falconbridge has made considerable headway in the marketing of electrolytic nickel squares in titanium baskets, as against conventional anodes, to serve the electroplating industry. The company's metallurgical research is giving increased attention to the requirements of customers in the metals field generally,

through the solution of specific problems and the development of new applications.

The Falconbridge marketing division has been reorganized to provide for a larger sales force and expanded service activities. Falconbridge products are now sold in every major market of the Free World through direct selling and through the support of a strong network of sales outlets in more than 25 countries.

As part of the company's overall marketing activities, increasing emphasis is being placed on advertising, sales promotion and corporate identity to project the Falconbridge name and product line. Among plans designed to further these objectives are broader programs of technical and sales literature, greater participation in major trade and industrial exhibitions, and increased use of North American and overseas media in the company's advertising plans.



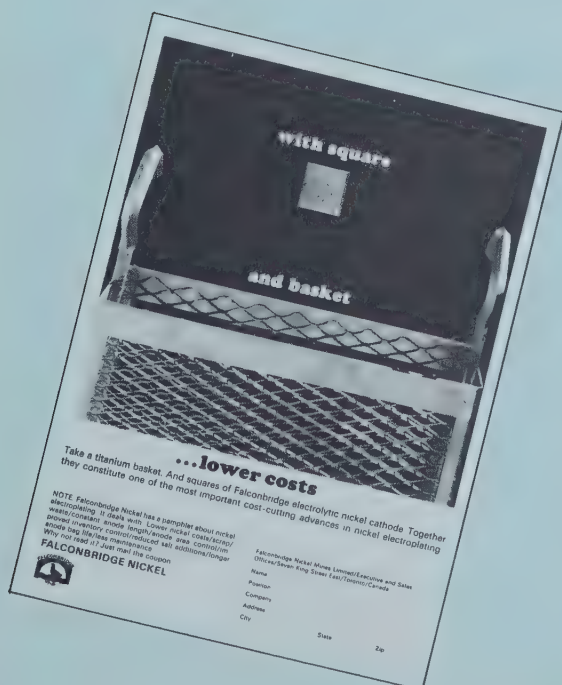
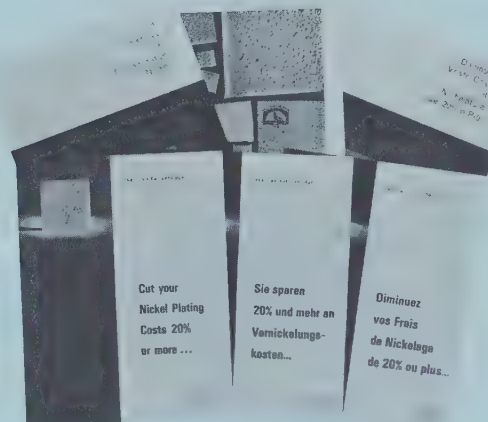
Samples of Falconbridge advertisements for newspapers and trade publications.



PROMOTING SALES IN COMMERCIAL MARKETS

Outdoor display board in Pittsburgh area forms background for Falconbridge advertisement.

Expanded program of technical sales literature provides information on the company, its products and services for North American and overseas markets.



▲ Attractive displays at leading metal and industrial exhibitions, such as in the Philadelphia show of American Society for Metals, shown here, feature company products and services.

GENERAL INFORMATION

Falconbridge Nickel Mines Limited

PRINCIPAL FACILITIES

Sudbury Operations

OFFICE:

Falconbridge, Ontario

PRODUCING MINES:

Falconbridge, East, Onaping, Hardy, Fecunis

UNDER CONSTRUCTION:

Strathcona Mine, scheduled for production late 1967

UNDER DEVELOPMENT:

North Mine (adjacent to Fecunis Mine)

MILL OPERATIONS:

Falconbridge, Hardy and Fecunis mills

SMELTER:

Falconbridge, Ontario

IRON ORE RECOVERY (PYRRHOTITE) PLANT:

Falconbridge, Ontario

Refinery

Falconbridge Nikkelverk A/S, Kristiansand S., Norway

RESEARCH LABORATORIES

Thornhill (near Toronto), Lakefield, and Falconbridge, Ontario;
Kristiansand S., Norway

EXPLORATION OFFICES

Toronto and Port Arthur, Ontario; Noranda, Quebec; Vancouver, B.C.

PRODUCTS

Nickel, copper, cobalt, gold, silver, platinum, palladium, iridium, rhodium, ruthenium, selenium, iron ore, liquid sulphur dioxide.

Other products marketed by affiliated companies include:
Magnesium, nepheline syenite, silica, gas and oil, carbon and low-alloy steel castings and additional products for industrial uses.



FALCONBRIDGE—SERVING WORLD NICKEL MARKETS

through the following Sales Offices:

AUSTRALIA	Nickel & Nickel Alloys, 6th Floor — Griff House 324 Pitt Street, Sydney.	LUXEMBOURG	Métaux Bruts Belges S.p.r.l. 13 Rue Aux Lits, Antwerp.
AUSTRIA	Braun & Braun Gesell- schaft für Werksbedarf, Rosensteingasse 71, Vienna 17.	NEPAL	Metal Distributors (U.K.) Ltd. 59/67 Gresham St., London E.C. 2, England.
BELGIUM	Métaux Bruts Belges S.p.r.l. 13 Rue Aux Lits, Antwerp.	NEW ZEALAND	Automatic Plating Equip- ment Co. (N.Z.) Ltd. 103 Newton Road, Auckland, C.3.
CANADA	Falconbridge Nickel Mines Limited 7 King Street East, Toronto, Ontario.	NORWAY	Falconbridge Nikkelverk A/S Kristiansand S.
DENMARK	Falconbridge Nikkelverk A/S Kristiansand S., Norway.	PAKISTAN	Metal Distributors (U.K.) Ltd. 59/67 Gresham St., London E.C. 2, England.
FRANCE	Métaux Bruts S.a.r.l., 6 ave du Coq, Paris.	RHODESIA	Barry Colne & Co. (Pty.) Ltd. 157 Main Street, Johannesburg, South Africa.
GERMANY (WEST)	Hütten Metall G.m.b.H. Neue Mainzer Strasse 40-42, Frankfurt Am Main.	SOUTH AFRICA	Barry Colne & Co. (Pty.) Ltd. 157 Main Street, Johannesburg, South Africa.
HOLLAND	Brandeis, Goldschmidt & Co. Ltd. 30 Gresham St., London E.C. 2, England.	SPAIN	Jorge Pascual S.A., Pje. Marques de Santa Isabel 40, Barcelona 5.
HONG KONG	Jardine, Matheson & Co. Ltd. 22 Pedder Street, Hong Kong.	SWEDEN	Falconbridge Nikkelverk A/S Kristiansand S., Norway.
INDIA	Metal Distributors Ltd. Binani Buildings, 38 Strand Road, Calcutta 1.	SWITZERLAND	Voegeli & Co. Metalle, Inhaber J. Kade, Postfach 8032, Zurich.
ISRAEL	Brandeis, Goldschmidt & Co. Ltd. 30 Gresham Street, London E.C. 2, England.	TAIWAN (FORMOSA)	Philipp Brothers (Canada) Ltd. 1245 Sherbrooke St. West, Montreal 25, Canada.
ITALY	Metalli Greggi S.p.A., Via S. Maria Fulcorina 6, Milan.	UNITED KINGDOM	Brandeis, Goldschmidt & Co. Ltd. 30 Gresham Street, London E.C. 2.
JAPAN	Mitsubishi Shoji Kaisha Ltd. 20 Marunouchi 2-Chome, Chiyoda-ku, Tokyo.	UNITED STATES	Falconbridge Nickel Mines Limited 7 King Street East, Toronto 1, Canada.
LATIN AMERICA	Philipp Brothers (Canada) Ltd. 1245 Sherbrooke St. West, Montreal 25, Canada.		





WAGON DRILLING, Falconbridge Mine

CANADA—A LEADER IN WORLD MINING

AS we draw closer to our first 100 years as a nation, Canada's busy mining and mineral industry is already in an advanced stage of development. As an example:

Canada is the world's *leading* producer of nickel, asbestos, platinum metals and zinc;

second largest producer of uranium, cadmium, cobalt, selenium and sulphur;

third in aluminum metal, gold, gypsum, tellurium and titanium;

fourth in lead, silver, magnesium and bismuth; and

fifth in copper, iron ore, barite and molybdenite.

With some 50 valuable minerals produced across the country, we are self-sufficient in this regard except for tin, manganese, chromite and a few smaller volume metals. Yet the relentless quest goes on, and each year the Canadian mining and mineral industry invests approximately \$45 million in the search for new deposits. Despite this enormous outlay, only one and a half new mines are found annually.

Huge expenditures are required for technical research, exploration, mine development and the establishment of mills, smelters, refineries and mining communities — reflecting the courage of the industry and its confidence in Canada's future. The varied activities of the Falconbridge group of companies, as portrayed on the foregoing pages, represent part of the industry's contribution to the economic development of Canada and its impact on the economy of other countries.



Annual Report 1964